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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,692	07/18/2005	Sergey Vladimirovich Antonenko	30933/41014	7063

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EXAMINER	
DINH, TIEN QUANG	

ART UNIT	PAPER NUMBER
3644	

MAIL DATE	DELIVERY MODE
10/30/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/525,692

Applicant(s)

ANTONENKO ET AL.

Examiner

Tien Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 8/16/07.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-33 is/are pending in the application.
- 4a) Of the above claim(s) 22-24, 26, 27 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21, 25, 28-31 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of the invention drawn to the method for gripping an object including a retaining aerodynamic force, an electromagnetic field rotation force, and an aerodynamic rotation force in the reply filed on 8/16/07 is acknowledged. The traversal is on the ground(s) that it is not serious burden. This is not found persuasive because examiner will have to search for different terms in the electronic database.

The requirement is still deemed proper and is therefore made FINAL.

Claims 22-24, 26-27, and 32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 8/16/07.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21, 29, 30, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Please note that applying momentum of electromagnetic field forces since momentum is mass times velocity. Electromagnetic fields do not have mass and hence no momentum.

Claim 30, line 11, "the rotating part of the object" lack antecedent basis.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21, 25, 28-31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morris 6942184 in view of Rolandelli 3511458 and Kling 3997131.

Morris discloses a method of detaching a part 12 from an object to be gripped 20. The detaching part is mechanically linked to the object 20 with parts 16. The detachable part includes blades 14 that are rotated. This itself will rotate the part 12. Morris is silent on other claimed steps. However, Rolandelli discloses a method for gripping an object (the parachutist) by detaching a part 12, 11 from the object while maintaining a mechanical link, mechanically engaging the detachable part by a part of a gripping object 20 through the spatial movement of the gripping object. Kling teaches that utilizing electromagnetic means/forces to apply a controlled rotation of the blades, which can move the device 31 in the atmosphere in three dimension and orient the device 31 in a particular orientation with respect to the vertical axis. His system orients the aerodynamic force to the device 31, which controls the orientation of the craft in general.

It would have been obvious to one skilled in the art at the time the invention was made to have mechanically engaged the detachable part by a part of a gripping object 20 through the spatial movement of the gripping object in Morris' system as taught by Rolandelli to allow the

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retrieval of the object to be gripped by an airplane so it won't end up in the wrong area.

Furthermore, it would have been obvious to one skilled in the art at the time the invention was made to have used electromagnetic fields/motor means in Morris's device 12 to control the orientation and movement and produce lift in the device 12 as taught by Kling to allow greater control and provide lift if needed. By having an electromagnetic fields/motor means in Morris's device 12, this device becomes essentially a flying craft that can be oriented or maneuver in the desired direction. This allows the device to be oriented at an angle with respect to the longitudinal axis of the object to be gripped. By angling the device 12 with respect to the object to be gripped, this allows less stress on the system as a whole when the gripping object grips the device 12. Plus, when Morris's device 12 has electromagnetic fields/motor means attached, this creates a controlled torque due to the rotation of the blades that will rotate the device 12. This also will stabilize the angular position of the device with respect to the object to be gripped.

Re claim 25, since the detachable part is dropped from an aircraft and it seems to be dropped from the back of the aircraft as shown in figure 3, the detachable part (in this case the blades) is rotated before it is detached from the object to be gripped since this allows the detachable part to be used immediately before the object to be gripped is released from the aircraft. Furthermore, since the detachable part can act as a flying vehicle, it makes sense to rotate the blades before the detachable part is detached from the object to be gripped so that it can fly when needed.

Re claim 30, please note that once the gripping object grips the detachable part of the object to be gripped, this will engage the blades, which will reduce the angular velocity of rotation.

***Response to Arguments***

The examiner has used new prior arts to reject the claims. This renders applicant's arguments moot.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Alexander, Ferguson, Girard, and Dillon disclose flying means.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

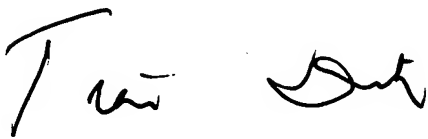
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TD

A handwritten signature in black ink, appearing to read "Tien Dinh", is written below the typed name "TD".